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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Ogi

Serial No. (not assigned)   Examiner (not assigned)

Filed concurrently herewith   Art Unit (not assigned)

For ROD LENS ARRAY AND A PROCESS FOR PRODUCING THE SAME

Assistant Commissioner of Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

Prior to calculation of the filing fee, Applicant wishes to amend the application as follows:

<u>In the Claims</u>:

Please amend claims 3, 14, 19, 21-24, 29, 30, and 34 as follows (a marked up version of claims 3, 14, 19, 21-24,29, 30, and 34 being appended hereto):

3. A rod lens array obtainable by the process according to claim 1, which has the gradient index rod lens aligned at an average spacing of $1 \mu m$ - $5 \mu m$.

14. The process according to claim 12, wherein the multiple ridges are formed by a screen printing.

19. The process according to claim 12, wherein the multiple ridges are formed by photolithography comprising the steps of applying a resist to the entire surface of the frame, exposing it to light through a mask and etching away the areas that have become soluble.
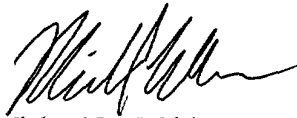
21. The process according to claim 12, wherein each of the rod lenses to be placed has a center-line-average roughness of 0.5μm - 2.0 μm on the peripheral surface.

22. The process according to claim 12, wherein the rod lenses to be placed are such that representative values for the center-line-average roughness on their peripheral surfaces are between 0.01μm and 0.2 μm as averaged for the whole lens array.

23. The process according to claim 12, wherein the rod lenses to be placed are such that representative values for the center-line-average roughness on their peripheral surfaces are between 0.01μm and 0.2 μm as expressed by standard deviation for the whole lens array.

24. The process according to claim 12, wherein the rod lenses to be placed are such that representative values for their diameters are between 0.01μm and 0.2 μm as expressed by standard deviation for the whole lens array.

29.. The rod lens array according to claim 26, wherein the representative values for the center-line-average roughness are each a value on a straight line that extends on the peripheral surface of the lens parallel to its axis.

30. The rod lens array according to claim 26, wherein the representative values for the center-line-average roughness are each the average of values on different straight lines that extend on the peripheral surface of the lens along its axis.

34. The rod lens array according to claim 26, further comprising:
        a resin portion that is integral with the constituent rod lenses such that it fills the gap between adjacent rod lenses and surrounds all rod lenses.

REMARKS

The amendment avoids multiple dependent claim language and does not introduce new matter.

Please proceed to examination on the merits.

Respectfully submitted,

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Marked-Up Version of the Claims

Claim 3 (once amended). A rod lens array obtainable by the process according to claim 1 [or 2], which has the gradient index rod lens aligned at an average spacing of 1μm - 5 μm.

Claim 14 (once amended). The process according to claim 12 [or 13], wherein the multiple ridges are formed by a screen printing.

Claim 19 (once amended). The process according to claim 12 [or 13], wherein the multiple ridges are formed by photolithography comprising the steps of applying a resist to the entire surface of the frame, exposing it to light through a mask and etching away the areas that have become soluble.

Claim 21 (once amended). The process according to claim 12 [or 13], wherein each of the rod lenses to be placed has a center-line-average roughness of 0.5μm - 2.0 μm on the peripheral surface.

Claim 22 (once amended). The process according to claim 12 [or 13], wherein the rod lenses to be placed are such that representative values for the center-line-average roughness on their peripheral surfaces are between 0.01μm and 0.2 μm as averaged for the whole lens array.

Claim 23 (once amended). The process according to claim 12 [or 13], wherein the rod lenses to be placed are such that representative values for the center-line-average roughness on their peripheral surfaces are between 0.01μm and 0.2 μm as expressed by standard deviation for the whole lens array.

Claim 24 (once amended). The process according to claim 12 [or 13], wherein the rod

lenses to be placed are such that representative values for their diameters are between 0.01μm and 0.2 μm as expressed by standard deviation for the whole lens array.

Claim 29 (once amended). The rod lens array according to claim 26 [or 27], wherein the representative values for the center-line-average roughness are each a value on a straight line that extends on the peripheral surface of the lens parallel to its axis.

Claim 30 (once amended). The rod lens array according to claim 26 [or 27], wherein the representative values for the center-line-average roughness are each the average of values on different straight lines that extend on the peripheral surface of the lens along its axis.

Claim 34 (once amended). The rod lens array according to [any one of claims] claim 26 [to 28], further comprising:

a resin portion that is integral with the constituent rod lenses such that it fills the gap between adjacent rod lenses and surrounds all rod lenses.